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STREETS & STEELE  
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13831 Northwest Freeway  
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EXAMINER
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NGUYEN, SON T

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* CARL E. WHITCOMB

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Appeal 2009-011554  
Application 10/075,096  
Technology Center 3600

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Decided: March 25, 2010

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Before: WILLIAM F. PATE III, STEFAN STAICOVICI, and  
FRED A. SILVERBERG, *Administrative Patent Judges*.

PATE III, *Administrative Patent Judge*.

STATEMENT OF THE CASE

This is an appeal from the final rejection of claims 1 to 65. These are the only claims in the application. We have jurisdiction under 35 U.S.C §§ 134 and 6.

The claimed invention is directed to a root growth barrier comprised of a layer of root-tip-trapping material bonded to a layer of root-impenetrable material.

Claim 1, reproduced below, is further illustrative of the claimed subject matter.

1. A root growth barrier, comprising a layer of root-tip-trapping material bonded to a layer of a root-impenetrable material.

#### REFERENCES

The references of record relied upon by the examiner as evidence of anticipation and obviousness are:

Reynolds	US 3,080,680	Mar. 12, 1963
Kalpin	US 3,094,810	Jun. 25, 1963
Thomas	US 5,311,700	May 17, 1994
Flasch	US 5,852,896	Dec. 29, 1998
Reiger	US 6,202,348 B1	Mar. 20, 2001
Billings	US 6,223,466 B1	May 1, 2001
Berlit	GB 2,073,567 A	Oct. 21, 1981
Van der Goorbergh	EP 300,578 A3	Jan. 25, 1989

Claims 1, 2, 15, 18, 19, 29, 30, 46-48 are rejected under 35 U.S.C. § 102 as anticipated by Reynolds.

Claims 3, 25, 26, 31, 32, 64, and 65 are rejected under 35 U.S.C. § 103 as unpatentable over Reynolds.

Claims 4-11, 27-28, 33-38, 42, 44, 49-53, 55-57, and 59-62 are rejected under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger.

Claim 12 stands rejected under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger and Thomas.

Claims 13-14, 16, 41, and 63 are rejected under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger and further in view of Berlitz.

Claims 17, 21, 22, and 24 are rejected under 35 U.S.C. § 103 as unpatentable over Reynolds in the view of Van der Goobergh.

Claims 20 and 23 are rejected under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Flasch.

Claims 39-40 are rejected under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger and Flasch.

Claim 43 is rejected under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Kalpin.

Claim 45 is rejected under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger and further in view of Billings.

Claims 54 and 58 are rejected under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger and further in view of Van der Goobergh and Berlitz.

The examiner has withdrawn a rejection of claims 1-48 and 63-65 as unpatentable under 35 U.S.C. § 112, first paragraph, for failure to comply with the enablement provision.

### OPINION

We have carefully reviewed the rejections on appeal in light of the arguments of the Appellant and the Examiner. As a result of this review we have reached the conclusion that the applied prior art does not establish that the claims on appeal lack novelty or are prima facie obvious. Accordingly, all rejections on appeal are reversed. Our reasons follow.

Turning first to the issue of claim construction, we are in agreement with the Appellant that the claim term “root-tip-trapping” has been defined

by the Appellant in the specification, and Appellant's definition is also recognized in the prior art. As Appellant argues on pages 15 and 16 of the Brief, we construe "root-tip-trapping" to mean that the tip of a root becomes trapped and cannot grow or expand any further. We further agree with the Appellant that this definition, explicit in the specification, is entirely consistent with the ordinary and customary meaning given to the term "root-tip-trapping" as understood by one of ordinary skill in the prior art. See Spec. paras. [0005] and [0041], Reiger, col. 2, ll. 26-65.

Turning to the prior art patent to Reynolds, it is our finding that Reynolds does not disclose a root-tip-trapping layer, nor does Reynolds disclose such a layer bonded to a root-impenetrable barrier. The passage of Reynolds identified by the Appellant specifically makes this point. Reynolds states that the enrobements "deflect roots which penetrate the pot wall and cause them to continue to grow in the inter-face between the pot and the skin." See col. 3, ll. 20-22.

This statement makes clear that Reynolds' fibrous pot 18 does not trap the roots, but merely allows the roots to grow through. Furthermore the fibrous pot 18 of Reynolds is not bonded to the skin 61, 62, inasmuch as the roots can continue to grow between the fibrous pot and the skin. Appellant's invention is designed specifically to prevent this growth, which is typical of roots which encircle the pot. Instead, in Appellant's invention, the root tips are trapped in the root-tip-trapping layer, and the roots branch out in the soil interior to the root-tip-trapping layer. Reynolds further states that the enrobements 61, 62 can be readily peeled from the fibrous pot 18 without itself tearing or without damage to the fibrous pot. See col. 6, ll. 3-13. This is clear evidence of lack of bonding. Since Reynolds lacks these two features

of Appellant's claims, these claims do not lack novelty over the Reynolds patent.

With respect to the rejection of claims 3, 25, 26, 31, 32, 64, and 65 rejected under 35 U.S.C. § 103 as unpatentable over Reynolds, since Reynolds does not disclose a root-tip-trapping layer nor any bonding of such a layer to an impenetrable barrier, we cannot affirm the section 103 rejection of these claims based on the Reynolds disclosure alone. The rejection of these claims under § 103 is reversed.

Further with respect to the rejection of claims 3, 25, 26, 31, 32, 64, and 65 rejected under 35 U.S.C. § 103 as unpatentable over Reynolds, the Examiner has stated that the specific features of these claims would have been obvious to one of ordinary skill as the discovery of optimum or workable ranges to achieve the desired effects. However, jurisprudence requires that the prior art recognize the importance or the result effective nature of the variables in question so that one of ordinary skill would know which feature or parameter to optimize. *See In re Antonie*, 559 F.2d 618,621 (CCPA 1977).

With respect to the rejection of claims 4-11, 27-28, 33-38, 42, 44, 49-53, 55-57, and 59-62 as unpatentable over Reynolds in view of Reiger the Examiner has cited Reiger to disclose a needle-punched porous fabric, or a fabric of polyester, polypropylene or olefin fiber. The Examiner initially states that Reynolds is silent about the root-tip-trapping material being a porous fabric. See final rejection, p.7, ll. 7, 8. As we have previously noted, however, Reynolds does not disclose root-tip-trapping material at all, nor does it disclose bonding of such material to a root impenetrable layer.

Therefore, the Examiner's conclusion of obviousness is based on erroneous fact-finding.

Furthermore, we are in agreement with the Appellant that there is no teaching or motivation for combining Reynolds and Reiger, nor is there anything in the prior art or the understanding of one of ordinary skill that would have rendered this combination of reference teachings predictable. Accordingly, the Examiner's conclusion of obviousness with respect to Reynolds and Reiger lacks articulated reasoning with rational underpinnings.

We have carefully reviewed the other applied patents, however, none of these patents provide any disclosure that would ameliorate the difficulties we have found with the Reynolds disclosure used as a basic reference. Accordingly, we are constrained to reverse all other § 103 rejections on appeal.

The rejection of claims 1, 2, 15, 18, 19, 29, 30, 46-48 under 35 U.S.C. § 102 as anticipated by Reynolds is reversed.

The rejection of claims 3, 25, 26, 31, 32, 64, and 65 under 35 U.S.C. § 103 as unpatentable over Reynolds is reversed.

The rejection of claims 4-11, 27-28, 33-38, 42, 44, 49-53, 55-57, and 59-62 under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger is reversed.

The rejection of claim 12 under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger and Thomas is reversed.

The rejection of claims 13-14, 16, 41, and 63 under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger and further in view of Berlitz is reversed.

The rejection of claims 17, 21, 22, and 24 under 35 U.S.C. § 103 as unpatentable over Reynolds in the view of Van der Goorbergh is reversed.

The rejection of claims 20 and 23 under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Flasch is reversed.

The rejection of Claims 39-40 under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger and Flasch is reversed.

The rejection of Claim 43 under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Kalpin is reversed.

The rejection of claim 45 under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger and further in view of Billings is reversed.

The rejection of Claims 54 and 58 under 35 U.S.C. § 103 as unpatentable over Reynolds in view of Reiger and further in view of Van der Goorbergh and Berlitz is reversed.

REVERSED

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